

**National EPA-Tribal Science Council (TSC)
Conference Call Roll Call and Key Discussion Points
Monday, August 26, 2019
2:00 – 3:30 p.m. EDT**

Roll Call

Tribal Caucus

- ☐ Region 1: William (Billy) Longfellow
(Passamaquoddy at Sipayik)
- ☐ Region 1 *Alternate*: Trevor White
(Passamaquoddy Tribe of Indian Township)
- ☒ Region 2: Neil Patterson (Tuscarora Nation)
- ☒ Region 4: Katie Tiger (Eastern Band of
Cherokee Indians)
- ☐ Region 4 *Alternate*: Jerry Cain (Mississippi
Band of Choctaw Indians)
- ☐ Region 5: Jeff Mears (Oneida Nation), Chair
- ☒ Region 6: Craig Kreman (Quapaw Tribe)
- ☐ Region 6 *Alternate*: TBD
- ☒ Region 7: Page Hingst (Santee Sioux Nation of
Nebraska)
- ☒ Region 7 *Alternate*: Misha Mazurkewycz (Ponca
Tribe of Nebraska)
- ☒ Region 8: Joshua Tweeton (Spirit Lake Tribe)
- ☐ Region 8 *Alternate*: Allyson Two Bears
(Standing Rock Sioux Tribe)
- ☒ Region 9: Carlotta (Carley) Whitecrane (Karuk
Tribe)
- ☐ Region 9 *Alternate*: TBD
- ☐ Region 10: Lee Juan Tyler (Shoshone-Bannock
Tribes)
- ☐ Region 10 *Alternate*: Kelly Wright (Shoshone-
Bannock Tribes)
- ☐ Region 10 (Alaska): Vacant

Support Personnel

- ☒ Monica Rodia, TSC Executive Secretary
- ☒ Kristen LeBaron, Support Contractor (SCG)

Action Items

1. TSC members are encouraged to read the monthly teleconference minutes to ensure that they are aware of current TSC activities, news and action items.
2. Interested Tribal Caucus members will contact Jeff Mears or Monica Rodia to participate on the Agenda Development Team for the November face-to-face meeting.
3. Kristen LeBaron will send an email to the Tribal Caucus to initiate the voting process for the new Tribal Caucus Chair and Vice Chair.

EPA Caucus

- ☐ Region 1: Vacant
- ☒ Region 2: Kai Tang
- ☒ Region 3: Regina Poeske
- ☐ Region 4: Dawn Taylor
- ☐ Region 5: Luke Hullinger
- ☐ Region 5 *Alternate*: Carole Braverman
- ☐ Region 6: Alexandra (Alexa) Olson
- ☒ Region 7: Christopher Taylor
- ☐ Region 7 *Alternate*: Amber Tilley
- ☒ Region 8: Alfred Basile
- ☒ Region 9: Matt Small
- ☒ Region 10: Lon Kissinger
- ☒ AIEO: Francine St. Denis
- ☒ OAR: Amanda Kaufman
- ☐ OCH: Ted Coopwood
- ☒ OCSPP: Karen Hamernik
- ☐ OCSPP *Alternate*: Amanda Hauff
- ☒ OLEM: David Charters
- ☒ OMS: Beth Jackson
- ☒ ORD: David Jewett
- ☒ ORD: José Zambrana, Chair
- ☒ OW: Karen Gude

Invited Speakers and Guests

- ☒ Patrick Bustos, EPA Region 7
- ☒ Kathleen Stewart, EPA Region 9

Key Discussion Points

Roll Call and Distribution of Meeting Minutes

- Monica took the roll and explained that the July 2019 monthly call notes had been finalized and distributed to the members.
- TSC members should read the minutes each month to ensure that they are aware of TSC activities, news and action items.

Caucus Report Outs

- Craig Kreman explained that the Tribal Caucus had met the previous Friday and had discussed the need for four Tribal Caucus members to participate in the Agenda Development Team for the November face-to-face meeting; anyone interested in participating should contact Jeff or Monica. They also discussed the fact that Jeff's term as Tribal Chair is ending, and new Co-Chairs will lead the face-to-face meeting. The Vice Chair position also needs to be filled. Kristen has sent an email to solicit nominations for these positions and will initiate the voting process via email.
- Region 6 is seeking an alternate for several tribal partnerships. Monica will speak about the TSC on future Regional Tribal Operations Committee (RTOC) calls to promote participation.
- José Zambrana reiterated the request for Agenda Development Team volunteers. He also will talk with senior leaders of EPA's Office of Research and Development (ORD), several of whom may attend the face-to-face meeting.
- An ORD states and tribes meeting in Region 9 is occurring on September 4 in Newport, Oregon. Two tribes are participating—Big Valley Band of Pomo Indians of the Big Valley Rancheria and Hopi Tribe—and an additional invitation for tribal participation has been released.

TSC Business Items

- *TSC Fall 2019 Face-to-Face Meeting*
 - The TSC Fall 2019 Face-to-Face Meeting will be held November 13–15, 2019. Tuesday, November 12 and the afternoon of Friday, November 15, 2019, will be allotted for travel.
 - Monica will work to arrange a consultation call for ORD's research programs during the meeting.
 - Monica will submit a memo to designate the meeting as training to facilitate travel to the meeting.
 - José encouraged attendees to work with Monica to arrange travel for the face-to-face meeting, including between airports and the meeting location, well in advance. He noted that the laboratory in Narragansett, Rhode Island, currently focuses on Atlantic ecology, but this may change after the ORD reorganization.

Navajo Wood and Stove Project: Leveraging Science for Public Health, Kathleen Stewart, EPA Region 9, Technology and Partnerships Office, Air and Radiation Division

- Kathleen Stewart explained that the burning of solid fuels remains a significant source of household air pollution across the United States, particularly in low-income communities. In tribal areas, coal is readily available and, in some cases, provided for free under historic coal mining lease agreements. Approximately 66 percent of Navajo homes use wood as their primary heat fuel, and many supplement

with coal on very cold days and at night. Other contributing pollution factors include older and inefficient stoves, incorrect stove technology for the fuel type, and lack of weatherization.

- One-third of stoves are more than 10 years old, and 16 percent are 20 or more years old. Most of these are not designed for the combination of wood and coal, and they are inefficient, polluting and unsafe. Many also are homemade and/or not vented properly.
- Wood and coal smoke contain climate pollutants, including carbon dioxide, methane and black carbon; such toxic air pollutants as benzene, formaldehyde and acrolein; carbon monoxide; nitrogen oxides; and fine particulate matter. Coal smoke also contains sulfur dioxides and such metals as arsenic, lead, fluorine and mercury. Health effects of exposure to wood and coal smoke include worsening lung disease and asthma, acute and chronic bronchitis, increased susceptibility to respiratory infections, reduced lung function, developmental and reproductive effects, heart disease, and premature mortality. Coal smoke is a known carcinogen, and biomass smoke is classified as a probable human carcinogen.
- EPA-certified wood stoves are cleaner and more efficient, but no dual-fuel stoves are EPA-certified. EPA pilot-tested new dual-fuel stoves, in collaboration with the Navajo community, to improve indoor air quality in a way that aligned with common heating practices.
- The Four Corners Power Plant Settlement Agreement funds stove changeouts and home weatherization, including the option to pilot-test dual-fuel stoves. Such agreements can be used as an opportunity to engage with the community and find creative solutions to public health problems. Rather than attempting to change a long-standing practice, the practice can be made more efficient and safer, which eventually can lead to other solutions.
- Commonly used stove models were tested to determine their current emissions. A standardized “Navajo test method” was developed to reflect real-world conditions, and three models commonly used on the Navajo Nation were tested on wood, Black Mesa coal and Fruitland coal. Next, three manufacturers participated in the development of a new stove that would meet emissions and safety standards. Once emissions data from the new models were compared to data from prior emissions tests, the Navajo Stove developed by Woodstock Soapstone was beta-tested in six homes and modified based on feedback. This model was certified by EPA in December 2017, the first dual-fuel wood/coal stove to receive such certification.
- The certified model was pilot-tested in 18 homes in March 2018 under the settlement agreement. Recipients reported using less wood and coal, producing less smoke, and experiencing fewer health symptoms. An air quality and health study then was conducted in the homes receiving the new stove. Although the data are not yet available and some results were affected by other situations, some homes experienced drastic improvements in emissions.
- The full program for stove replacements, weatherization, education, carbon monoxide detectors and tools under the settlement opened in October 2018, and priority is given to homes with elders, children, veterans and people with health conditions. To date, 178 applicants have submitted to the program.
- Education and training are key to success in this program, and a number of efforts have been developed in association with student and industry partners.
- Kathleen emphasized that this project began with only awareness of a public health issue and no obvious solution. Success was achieved by engaging with every opportunity and partner available, communicating about the issue broadly and frequently, assessing the problem in relation to the actual practices in the community, planning ahead—even prior to securing funding, and creatively sourcing funding from multiple areas. Most important, sustained and expanding partnerships are necessary to make progress.

- Attendees commended Kathleen for the diverse resources used to solve this problem and recommended the use of the ORD-supported Regional Applied Research Effort (RARE) program in similar situations. Four TSC members are regional science liaisons and can help connect RARE program applicants with regional scientists.
- Kathleen clarified that the tests were conducted by a contracted laboratory to facilitate industry research and design.
- The students involved in this project had diverse areas of expertise and helped in many ways, including by conducting public health field study surveys, developing instructional videos, determining a viable education program, and developing a business plan for contractors.

Announcements

- Page Hingst attended a meeting with other EPA-Tribal Partnership Groups arranged by the Tribal Waste and Response (TWAR) Steering Committee at the Tribal Land and Environment Forum, serving as a representative of the TSC. Attendees had many competing priorities, and Page reported that Victoria Flowers, from the TWAR Steering Committee, would send a poll to the TSC Co-Chairs to assist with prioritization.
- Neil Patterson reported that he had volunteered to continue as the TSC representative for Region 2 at its recent RTOC meeting.

Next TSC Teleconference

- The next TSC teleconference will be held on September 16, 2019, from 2:00 to 3:30 p.m. EDT.